ALCCS

Code: CS482 **Subject: DATA WAREHOUSE DESIGN & IMPLEMENTATION**
Time: 3 Hours **Max. Marks: 100**

MARCH 2010

NOTE:

- **Question 1 is compulsory and carries 28 marks. Answer any FOUR questions from the rest. Marks are indicated against each question.**
- **Parts of a question should be answered at the same place.**

Q.1 **(7 × 4)**

a. Discuss the four levels of data in the architected environment.

b. Discuss the problem related to use and storage of unstructured data in the data warehouse.

c. Discuss the three types of distributed Data Warehouse?

d. Compare and contrast the system development life cycle for data warehouse with the classical SDLC.

e. Write four techniques that can be used to limit the amount of operational data scanned at the point of refreshing the data warehouse.

f. Discuss the role of metadata in a Data Warehouse Environment.

g. Define the following terms:
(i) Business Metadata.
(ii) Technical Metadata.
(iii) Index Only Processing.
(iv) Fast Restore

Q.2 a. A data warehouse is a subject-oriented, integrated, time-variant and non-volatile collection of data to support of management's decision-making process. Comment?

b. How is data structured in a Data Warehouse? Explain?

c. What is Granularity? What are its benefits related to a Data Warehouse? **(8+6+4)**

Q.3 a. Write short note on
(i) Techniques to make feedback loop harmonious.
(ii) Snapshots in Data Warehouse.

b. Write in detail about the three data models used in Data Warehouse. **(4+4+10)**

Q.4 a. Explain Star Schema and snowflake schema with the help of examples.

b. Discuss the technological requirements of a Data Warehouse. **(9+9)**

Q.5 a. Differentiate between
(i) Data Warehouse and MDBMS.
(ii) OLAP and OLTP.

b. What is a Multidimensional DBMS? Discuss the advantages and disadvantages of relational foundation of multidimensional DBMS and cube foundation of multidimensional DBMS. **(5+5+8)**

Q.6 a. Discuss the architecture of a data warehouse with the help of a diagram.

b. Explain Drill-Down Analysis and Event Mapping in context of EIS. **(8+10)**

Q.7 Write a short note on any **THREE**: **(6+6+6)**

(i) Partitioning of Data in Data Warehouse.
(ii) Complexities in transformation and integration of data.
(iii) Global and Local Data Warehouse.
(iv) Data Marts.